

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method for performing a hard hand-off in a cellular mobile communication system, the method comprising the steps of:

setting an area of services covered with a frequency assignment (FA) of a plurality of FAs of a base station currently engaged in communication with a mobile communication terminal, to be a boundary cell, the FA is only included in FAs of the base station not in adjacent stations of the base station;

entering into the boundary cell by the mobile communication terminal during communication;

receiving a candidate frequency search request message, commanding the mobile communication terminal to search common FAs of only adjacent stations, except the base station currently engaged in communication, from a Base Station Controller (BSC); and

searching FAs of only adjacent stations excluding the base station currently engaged in communication with said mobile communication terminal in response to the command, so as to determine a target FA, with which the mobile communication terminal is to perform the hard hand-off.

2. (Original) The method of claim 1, wherein the target FA is determined by the mobile communication terminal through searching common FAs of adjacent stations to perform the hard hand-off therewith.

3. (Original) The method of claim 2, wherein determination of the target FA includes a step of recognizing that the mobile communication terminal is currently engaged in communication in the boundary cell, and commanding the mobile communication terminal to search FAs of the adjacent stations excluding the base station currently engaged in communication with said mobile communication terminal by means of a base station controller (BSC), which controls the hand-off of the mobile communication terminal.

4. (Currently Amended) A method for performing a hard hand-off in a cellular mobile communication system, the method comprising the steps of:

setting an area of services covered with a FA of a plurality of FAs of a base station currently engaged in communication with ~~[[a]]an~~ mobile communication terminal, to be a boundary cell, the FA is only included in FAs of the base station not in adjacent stations of the base station;

establishing a call in the boundary cell by the mobile communication terminal to initiate communication;

receiving a candidate frequency search request message commanding the mobile communication terminal to search common FAs of only adjacent stations, except the base station currently engaged in communication, from a BSC; and

searching FAs of only adjacent stations excluding the base station currently engaged in communication with said mobile communication terminal in response to the command, so as to determine a target FA, with which the mobile communication terminal is to perform the hard hand-off.

5. (Original) The method of claim 4, wherein the target FA is determined by the mobile communication terminal through searching common FAs of adjacent stations to perform the hard hand-off therewith.

6. (Original) The method of claim 5, wherein determination of the target FA includes a step of recognizing that the mobile communication terminal is currently engaged in communication in a boundary cell, and commanding the mobile communication terminal to search FAs of the adjacent stations excluding the base station currently engaged in communication with said mobile communication terminal by means of a base station controller (BSC), which controls the hand-off of the mobile communication terminal.

7. (Previously Presented) A method for performing a hard hand-off in a cellular mobile communication system including at least two base stations for providing a mobile

communication terminal with services by having service areas that share at least one FA and can be overlapped, and a base station controller (BSC) for controlling the hand-off of the mobile communication terminal, the method comprising the steps of:

setting an area of services covered with a FA of a plurality of FAs of a base station currently engaged in communication with a mobile communication terminal, to be a boundary cell, the FA is only included in FAs of the base station not in adjacent stations of the base station;

connecting communication with a first sector and a second sector by a softer hand-off while the mobile communication terminal moves from the first sector to the second sector of the base station currently engaged in communication with said mobile communication terminal;

recognizing the second sector to be the boundary cell, and commanding the mobile communication terminal to search common FAs of the adjacent stations, except the base station currently engaged in communication, by the BSC;

searching common FAs of only the adjacent stations by the mobile communication terminal in response to the command, and reporting the searched results to the BSC;

determining a target FA, with which the BSC is to perform a hard hand-off by using the searched results if conditions for performing the hard hand-off are satisfied; and

performing the hard hand-off with the determined target FA by disconnecting the communication with the first sector and the second sector from the mobile communication terminal under a command of the BSC.